Amendments to the Claims:

This claim listing will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (currently amended) A catalyst-coated ion-conducting membrane for electrochemical devices, which comprises a membrane having front and reverse sides and an edge region [[(1)]], at least one catalyst layer [[(3)]] and a sealing material [[(4)]], wherein the sealing material [[(4)]] is applied in the edge region of the ion-conducting membrane [[(1)]].

2. (currently amended) The catalyst-coated ion-conducting membrane as claimed in claim 1, wherein the thickness of the sealing material [[(4)]] (d_D) corresponds to at least the thickness of the catalyst-coated ion-conducting membrane (d_{CCM}).

3. (currently amended) The catalyst-coated ion-conducting membrane as claimed in claim 1, wherein the sealing material [[(4)]] contacts the ion-conducting membrane [[(1)]] circumferentially in [[an]] the edge region [[of]] and over at least 1 mm on [[one]] the front or reverse side.

4. (currently amended) The catalyst-coated ion-conducting membrane as claimed in [[any of]] claim[[s]] 1[[to 3]], wherein the at least one catalyst layer comprises precious metal based catalysts and is applied over the entire area of the ion-conducting membrane.

5. (currently amended) The catalyst-coated ion-conducting membrane as claimed in [[any of]] claim[[s]] 1[[to 4]], which comprises [[both]] a catalyst layer on the front side [[(2)]] and a second catalyst layer on the reverse side [[(3)]] of the ion-conducting membrane.

6. (currently amended) The catalyst-coated ion-conducting membrane as claimed in [[any of]] claim[[s]] 1[[to 5]], wherein the sealing material comprises a thermoplastic polymer[[s]] and/or copolymer[[s]] selected from the group consisting of polyethylenes, polypropylenes, [[polytetrafluoroetylenes]] polytetrafluoroethylenes, PVDF, polyesters, polyamides, polyamide elastomers, polyimides and polyurethanes, an elastomer[[s]] selected from the group consisting of silicones, silicone elastomers, EPDM, fluorinated elastomers, perfluorinated elastomers, chloroprene elastomers, and fluorosilicone [[elastoers]] elastomers and/or a thermoset polymer[[s]] selected from the group consisting of epoxy resins, phenolic resins and [[cyano-crylates]] cyano-acrylates.

7. (currently amended) The catalyst-coated ion-conducting membrane as claimed in [[any of]] claim[[s]] 1[[to 6]], wherein the ion-conducting membrane comprises an organic polymer[[s such as]] selected from the group consisting of proton-conducting perfluorinated polymeric sulfonic acid compounds, doped polybenzimidazoles, polyether ketones, polysulfones [[and/or]] and ion-conducting ceramic materials.

8. (currently amended) A membrane-electrode assembly for electrochemical devices, which comprises an ion-conducting membrane having [[front and reverse sides (1)]] a front side, a reverse side and an edge region, a first catalyst layer on the front side [[(2)]], a second catalyst layer on the reverse side [[(3)]], a first gas diffusion layer [[(5)]] on the front side, a second gas diffusion layer on the reverse side [[(6)]] and a sealing material [[(4)]], wherein the sealing material [[(4)]] contacts the insides of each of the gas diffusion layers [[(5)]] and [[(6) in]] the edge region.

9. (currently amended) The membrane-electrode assembly as claimed in claim 8, wherein the sealing material contacts the insides of the gas diffusion layers [[(5) and (6)]] circumferentially [[in]] the edge region and overlaps the ion-conducting membrane to a width of at least 1 mm.

10. (currently amended) The membrane-electrode assembly as claimed in claim 8[[or 9]], wherein the gas diffusion layers [[(5) and (6)]] comprise porous, electrically conductive materials such as woven carbon fiber fabrics, carbon fiber felts or carbon fiber papers.

11. (currently amended) A process for producing a catalyst-coated ion- conducting membrane having an integrated sealing material, which comprises

providing an ion-conducting membrane [[(1)]] having a surface area and an edge region and at least one catalyst layer applied over the entire surface area and

applying the sealing material [[(4)]] in the edge region of the ion-conducting membrane [[(1)]] on one side with the aid of elevated pressure and/or elevated temperature.

12. (currently amended) A process for producing a membrane-electrode assembly having an integrated sealing material, which comprises

providing a catalyst-coated ion-conducting membrane with a sealing material as claimed in [[any of]] claim[[s]] 1[[to 7]], and

applying [[the]] a gas diffusion layer[[s (5) and (6)]] to each of the front and reverse sides of the catalyst-coated ion-conducting membrane with the aid of elevated pressure and/or elevated temperature.

13. (currently amended) A process for producing a membrane-electrode assembly having an integrated sealing material, which comprises

providing an ion-conducting membrane [[(1)]] having front and reverse sides, a surface arean and an edge region and at least one catalyst layer applied to the entire surface area,

positioning the sealing material [[(4)]] on one side of the membrane in the edge region of the ion-conducting membrane [[(1)]],

positioning [[the]] a gas diffusion layer[[s (5) and (6)]] on each of the front and reverse sides of the catalyst-coated ion-conducting membrane,

bonding the structure at elevated pressure and/or temperature.

14. (original) The process as claimed in claim 11, wherein the pressure (quoted as area pressure based on the frame area of the sealing material) is in the range from 50 to 300 N/cm^2 and the temperature range is from 20 to 200 °C.

15. (currently amended) The process as claimed in claim 12[[or 13]], wherein the pressure (quoted as area pressure based on the area of the gas diffusion layer) is in the range from 50 to 200 N/cm^2 and the temperature range is from 20 to 200 °C.

16. (currently amended) Use of the catalyst-coated ion-conducting membranes as claimed in [[any of]] claim[[s]] 1[[to 7]] for producing membrane-electrode assemblies for electrochemical devices, in particular for fuel cells.

17. (currently amended) Use of the membrane-electrode assemblies as claimed in [[any of]] claim[[s]] 8[[to 10]] for electro-chemical devices, in particular for fuel cells.